

1        1. In a system including a device that synchronizes with one or more  
2 synchronization partners, wherein a delete request for an object stored on the device can  
3 inadvertently delete corresponding objects from stores of the one or more synchronization  
4 partners, a method for deleting the object from a store of the device without deleting the  
5 corresponding objects on the one or more synchronization partners, the method  
6 comprising:

7                  an act of synchronizing the device with a synchronization partner using a  
8 filter, wherein the filter excludes the object from the synchronization;  
9                  an act of requesting that the object be deleted from the device;  
10                 an act of determining by a sync manager whether other synchronization  
11 partners are synchronizing the object in response to the request; and  
12                 an act of deleting the object from the device if the sync manager determines  
13 that either the object is not synchronized with the other synchronization partners or  
14 the other synchronization partners allow the object to be deleted .

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16        2. A method as defined in claim 1, wherein the act of synchronizing the device  
17 further comprises an act of the user specifying parameters of the filter.

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19        3. A method as defined in claim 1, further comprising an act of preventing the  
20 object from being deleted if the sync manager determines that at least one of the other  
21 synchronization partners does not grant permission to delete the object.

1           4. A method as defined in claim 1, wherein the act of requesting that the object  
2 be deleted further comprises an act of sending a soft delete request from a first device sync  
3 module associated with the first synchronization partner to the sync manager.

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5           5. A method as defined in claim 1, further comprising an act of updating the  
6 tracking data of a first device sync module such that the first device sync module does not  
7 subsequently synchronize the object with associated with the first synchronization partner  
8 even if the object is not deleted.

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10          6. A method as defined in claim 1, further comprising an act of the sync  
11 manager identifying other device sync modules that synchronize the store of the wireless  
12 device.

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14          7. A method as defined in claim 6, further comprising an act of the sync  
15 manager determining if the other device sync modules synchronize the object, wherein the  
16 other device sync modules that synchronize the store register with the sync manager.

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18          8. A method as defined in claim 6, further comprising an act of updating the  
19 tracking data associated with the other synchronization partners such that the object is not  
20 subsequently synchronized with the other synchronization partners even if the object is not  
21 deleted.

1           9. A method as defined in claim 6, further comprising an act of the other  
2 device sync modules notifying the other synchronization partners that the object was soft  
3 deleted.  
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1       10. In a system including a device having a store, wherein the store is  
2 synchronized with one or more synchronization partners, wherein a delete request for an  
3 object in the store can result in a deletion of corresponding objects on the one or more  
4 synchronization partners, a method for deleting an object from the store of the device that  
5 is excluded by a filter during synchronization between the device and a first  
6 synchronization partner, the method comprising:

7                  an act of a first device sync module sending a soft delete request to a sync  
8 manager, wherein the first device sync module is associated with the first  
9 synchronization partner;

10                 an act of the sync manager determining whether other synchronization  
11 partners are synchronizing the object;

12                 an act of deleting the object from the store if the other synchronization  
13 partners are not synchronizing the object; and

14                 an act of not deleting the object from the store if at least one of the other  
15 synchronization partners is synchronizing the object.

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17       11. A method as defined in claim 10, further comprising an act of receiving the  
18 soft delete request from the first synchronization partner, wherein the soft delete request  
19 informs the first device sync module that the object is excluded by the filter and may be  
20 deleted from the store of the device.

1           12. A method as defined in claim 10, wherein the act of the first device sync  
2 module sending a soft delete request further comprises an act of the first device sync  
3 module updating the tracking data of the first device sync module that is associated with  
4 the first synchronization partner such that the object is no longer synchronized by the first  
5 synchronization partner.

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7           13. A method as defined in claim 10, wherein the other synchronization  
8 partners that synchronize the store of the device are registered in a table of the sync  
9 manager.

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11          14. A method as defined in claim 10, further comprising an act of not  
12 synchronizing the object in future synchronizations between the device and the first  
13 synchronization partner.

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15          15. A method as defined in claim 10, wherein the act of deleting the object from  
16 the store further comprises an act of other device sync module updating their tracking data  
17 such that the deletion of the object is not propagated to the corresponding objects of the  
18 other synchronization partners.

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20          16. A method as defined in claim 10, further comprising:  
21                 an act of the first device module tracking that the object was soft deleted;  
22                 and  
23                 an act of ensuring that the other synchronization partners do not delete  
24 corresponding objects from stores of the synchronization partners.

- 1        17. A method as defined in claim 10, further comprising:  
2                  an act of allowing the other synchronization partners to delete the object  
3                  from their stores; and  
4                  an act of preventing the object from being deleted from a store of the first  
5                  synchronization partner.
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1        18. In a system including a device having a device store, wherein the store of  
2 the device is synchronized with stores of one or more synchronization partners, a method  
3 for automatically deleting a data object from the store of the device without deleting  
4 corresponding data objects from the stores of the one or more synchronization partners  
5 during future synchronizations, the method comprising:

6              a step for synchronizing the device store with a store of a first  
7 synchronization partner, wherein the synchronization generates a soft delete request  
8 for the data object;

9              a step for querying other device sync modules to determine if the data  
10 object is synchronized by the one or more synchronization partners;

11              a step for granting the soft delete request if the one or more synchronization  
12 partners do not synchronize the data object or if the one or more synchronization  
13 partners grant permission for the soft delete request; and

14              a step for denying the soft delete request if one of the one or more  
15 synchronization partners objects to the soft delete request.

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17        19. A method as defined in claim 18, wherein the step for synchronizing the  
18 device store further comprises:

19              an act of detecting that the data object does not meet parameters of a filter  
20 used during the synchronization of the device store with the store of the first  
21 synchronization partner;

22              an act of updating the tracking data of a first device sync module for the  
23 data object such that the object is no longer synchronized, the first device sync  
24 module associated with the first synchronization partner; and

1                   an act of the first device sync module sending the soft delete request to a  
2 sync manager.

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4         20. A method as defined in claim 18, wherein the step for querying other device  
5 sync modules further comprises:

6                   an act of a sync manager, which receives the soft delete request,  
7 determining if the other device sync modules track the data object;

8                   an act of determining whether the other device sync modules object to the  
9 deletion of the data object;

10                  an act of not deleting the data object when one of the other device sync  
11 modules objects to the deletion of the data object; and

12                  an act of updating the tracking data of the other device sync modules that do  
13 not object to the deletion of the data object such that the object is no longer  
14 synchronized through the other device sync modules.

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16         21. A method as defined in claim 18, further comprising a step for ensuring that  
17 the data object is not deleted from the one or more synchronization partners.

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19         22. A method as defined in claim 21, further comprising an act of the other  
20 device sync modules notifying their corresponding synchronization partner that a soft  
21 delete was performed on the data object.

1       23. In a system including a device that synchronizes with one or more  
2 synchronization partners, wherein a delete request for an object stored on the device can  
3 inadvertently delete corresponding objects from stores of the one or more synchronization  
4 partners, a computer program product for implementing a method for deleting the object  
5 from a store of the device without deleting the corresponding objects on the one or more  
6 synchronization partners, the computer program product comprising:

7                     a computer readable medium for carrying machine-executable instructions  
8 for implementing the method; and wherein the method comprises:

9                     an act of synchronizing the device with a first synchronization partner  
10 using a filter, wherein the filter excludes the object from the  
11 synchronization;

12                     an act of requesting that the object be deleted from the wireless  
13 device;

14                     an act of determining by a sync manager whether other  
15 synchronization partners are synchronizing the object in response to the  
16 request; and

17                     an act of deleting the object from the device if a sync manager  
18 determines that the object is not synchronized with the other  
19 synchronization partners or that the other synchronization partners allow the  
20 object to be deleted.

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22       24. A computer program product as defined in claim 23, wherein the act of  
23 synchronizing the device further comprises an act of the user specifying parameters of the  
24 filter.

1        25. A computer program product as defined in claim 23, further comprising an  
2 act of preventing the object from being deleted if the sync manager determines that the  
3 object is synchronized by at least one of the other synchronization partners.

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5        26. A computer program product as defined in claim 23, wherein the act of  
6 requesting that the object be deleted further comprises an act of sending a soft delete  
7 request from a first device sync module associated with the first synchronization partner to  
8 the sync manager.

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10      27. A computer program product as defined in claim 23, further comprising an  
11 act of updating the tracking data of a first device sync module that corresponds to the first  
12 synchronization partner, the first device sync module associated with the first  
13 synchronization partner.

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15      28. A computer program product as defined in claim 23, further comprising an  
16 act of the sync manager identifying other synchronization partners that synchronize the  
17 store of the wireless device.

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19      29. A computer program product as defined in claim 28, further comprising an  
20 act of the sync manager determining if the other synchronization partners synchronize the  
21 object, wherein the other synchronization partners that synchronize the store register with  
22 the sync manager.

1           30. A computer program product as defined in claim 28, further comprising an  
2 act of updating the tracking data associated with the other synchronization partners through  
3 the first device sync modules such that the object is no longer synchronized by the other  
4 synchronization partners.

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6           31. A computer program product as defined in claim 28, further comprising an  
7 act of the other device sync modules notifying the other synchronization partners that the  
8 object was soft deleted.